

Title (en)  
DEVICE FOR THE PRODUCTION OF PHOSPHORIC ACID

Publication  
**EP 0010217 A3 19800514**

Application  
**EP 79103742 A 19791002**

Priority  
DE 2845642 A 19781020

Abstract (en)  
[origin: US4252770A] The invention relates to an apparatus for the production of phosphoric acid by subjecting yellow phosphorus to combustion inside a combustion tower, the apparatus comprising a cone-shaped shell with a flat bottom of acidproof material forming the combustion tower, the cone ratio of the shell being 1:10 to 1:12. An upwardly-directed off-gas outlet is secured to the lower portion of the shell and a plurality of downwardly directed spray nozzles is arranged so as to open through the middle portion of the shell into the interior of the combustion tower. An acid-receiving cup with an overflow weir is positioned near the upper end of the shell, the acid-receiving cup surrounding the combustion tower concentrically, being gas-tightly connected to, and supporting, a self-supporting cone-shaped tower cover having a passageway passed centrally through it. The overflow weir is formed of a tubular-annular structure disposed completely horizontally inside the acid-receiving cup. The tower cover forms, with respect to the horizontal, an angle alpha of at least 19 DEG . A water-cooled air inlet and a tubular holding means terminating in a phosphorus spray nozzle are hooked concentrically with respect to one another in, and are passed through the passageway in the cover.

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